

KING EDWARD VII SANATORIUM MIDHURST

**(FOUNDED BY H.M. KING EDWARD VII IN 1902 WITH FUNDS
PROVIDED BY THE LATE SIR ERNEST CASSEL)**

**PRESIDENT :
HIS MAJESTY THE KING**

THIRTY-THIRD ANNUAL MEDICAL REPORT

JULY 1938 to JUNE 1939

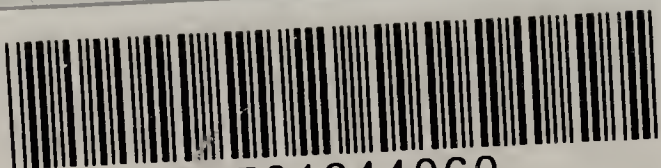
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KING EDWARD VII SANATORIUM, MIDHURST
South Elevation of Patients' Block



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KING EDWARD VII SANATORIUM MIDHURST

Thirty-third Annual Medical Report JULY 1938 to JUNE 1939

DURING the period July 1st, 1938, to June 30th, 1939, 244 patients were admitted to the Sanatorium, 55 of these being readmissions.

During the same period, 233 patients were discharged, and 6 died in the Sanatorium. Of those discharged, 8 were in the Sanatorium less than nine weeks, and are not followed up in the after-history records, and 51 were readmissions who are considered in a later section of the Report. The remaining 174 patients were grouped according to condition on admission, as follows :—

Group I	...	...	...	...	...	37
Group II	...	...	...	...	...	114
Group III	...	...	...	...	...	19
Group IV	...	...	...	...	...	4

(Details of the classification will be found on page 9.)

Applications for particulars of admission totalled 395, and the average waiting list was 19–20 for men and 21–22 for women.

Twenty-four applicants were examined by the Medical Superintendent ; of these 20 were accepted for treatment and 4 were rejected as unsuitable, according to the rules of the Sanatorium.

During the year the television set, which was kindly presented to us by Sir Edward Mayerstein, has been in constant use, and has always attracted a considerable number of people. Considering the distance from Alexandra Palace, the reception is extremely good. As previously, such things as the tennis championships at Wimbledon and items of historical interest have been viewed by those who would otherwise have been unable to see them.

An extra number of moving pictures were added to the already popular weekly programmes, and they were carried on fortnightly during the summer months. This was made possible by the dark curtains which have been installed in the dining room and, even on the brightest summer evening, they were shown in the usual way.

Two staff concerts were given, but the usual fortnightly concerts were discontinued in favour of the weekly picture shows.

The usual whist drives, bridge drives and competitions at holiday times were carried on by the patients and were organised by the Patients' Committee.

We would like to put on record again the invaluable assistance of the *Times* Book Club, which has given helpful advice on keeping the library up to date with the most modern works of fiction and books of historical interest.

Church Services were held on Sundays, with special Services on such days as Armistice Day, etc. Holy Communion is held weekly in the Chapel, and is also administered to bed patients. The increase in the number of attendances has been maintained.

The Roman Catholic Priest has again visited the Sanatorium at regular intervals to say Mass for the Catholic patients.

The shop continues to prove very popular, and a number of new lines have been added during the year.

We wish to place on record our grateful thanks to the Council and Consulting Staff for their valuable services and unfailing interest in the welfare of the Sanatorium.

To all members of the Staff also we add our sincere thanks for their loyal co-operation.

GENERAL STATISTICS

The following tables show an analysis of the 174 new patients discharged during the year, under the following headings :—

- (1) Place of Residence.
- (2) Occupation.
- (3) Age and Sex.
- (4) Married or Single.
- (5) Mode of Onset of Disease.
- (6) Duration of Disease.

TABLE I—PLACE OF RESIDENCE

Place of Residence	Number of Patients	Place of Residence	Number of Patients
London	48	Northants	2
Surrey	15	Suffolk	2
Kent	12	Wiltshire	2
Irish Free State	10	Australia	1
Middlesex	8	Channel Islands	1
Hampshire	7	Cheshire	1
Essex	7	Chile	1
Sussex	7	China	1
Devonshire	6	Cornwall	1
Yorkshire	5	Derbyshire	1
Brazil	4	Dorsetshire	1
Hertfordshire	4	Durham	1
Warwickshire	3	East Africa	1
No fixed residence	3	France	1
Bedfordshire	2	Herefordshire	1
Berkshire	2	Nigeria	1
Buckinghamshire	2	Lincolnshire	1
India	2	Staffordshire	1
Lancashire	2	Worcestershire	1
Leicestershire	2	Oxfordshire	1
			174

TABLE II—OCCUPATION

Occupation	Number of Patients	Occupation	Number of Patients
Housewives	23	Solicitors	2
Clerks	20	Actresses	1
Managers	12	Analytical Chemists	1
Medical Practitioners	10	Artists	1
Engineers	8	Bakers and Confectioners	1
Agents	6	Barristers	1
Secretaries	6	Builders	1
Students	6	Cattle Buyers	1
Merchants	5	Chartered Accountants	1
Nil	5	Civil Servants	1
Teachers	5	Draughtsmen	1
Army	4	Estate Agents	1
Nurses	4	Grocers	1
Accountants & Book-keepers	3	Hairdressers	1
Brokers	3	Handicraft Workers	1
Clergymen	3	Metallurgists	1
Commercial Travellers	3	Public Assistance Officers	1
Company Officials	3	Publishers	1
Navy	3	Salesmen	1
Air Force	2	Saw Doctors	1
Apprentices	2	Set Decorators, Motion Pictures	1
Bank Officials	2	Speech Therapists	1
Dispensers	2	Stock Jobbers	1
Farmers	2	Telegraphists	1
Journalists	2	Tobacco Manufacturers	1
Social Workers	2	Veterinary Surgeons	1
		Window Dressers	1
			174

TABLE III—AGE AND SEX

Years							Males	Females	Total
Under 20	...	...	...	...	...	...	6	5	11
20-25	...	...	...	...	...	...	17	11	28
26-30	...	...	...	...	...	...	27	18	45
31-35	...	...	...	...	...	...	19	11	30
36-40	...	...	...	...	...	...	19	5	24
41-45	...	...	...	...	...	...	12	4	16
46-50	...	...	...	...	...	...	12	2	14
Over 50	...	...	...	...	...	...	5	1	6
							117	57	174

TABLE IV

Married	...	...	90
Single	...	...	84
			174

TABLE V—MODE OF ONSET OF DISEASE

Mode of Onset							Number of cases	Percentage
Cough	...	...	...	...	...	...	74	42.5
Lassitude	...	...	...	...	...	...	26	14.9
Hæmoptysis	...	...	...	...	...	...	24	13.8
Pleurisy	...	...	...	...	...	...	19	10.9
Loss of Weight	...	...	...	...	...	...	1	.6
Other Modes	...	...	...	...	...	...	17	9.8
Influenza	...	...	...	...	...	...	13	7.5
							174	100.0

TABLE VI—DURATION OF DISEASE

Average Duration	...	...	2 years 2 months.
Extremes	...	...	3 weeks-35 years.

TABLE VII—GENERAL RESULTS OF TREATMENT AS SHOWN BY THE CONDITION OF THE PATIENTS ON ADMISSION AND ON DISCHARGE FROM THE SANATORIUM DURING THE YEAR 1938-39.

Group on Admission	Number of Cases	Arrested	Much Improved	Improved	Stationary or Worse	Died in Sanatorium
IA ...	27	26	1	—	—	—
IB ...	10	6	—	2	2	—
IIA ...	46	35	9	—	2	—
IIB ...	68	28	26	13	1	—
IIIA ...	5	—	3	2	—	—
IIIB ...	16	—	3	5	6	2
All Cases	172	95	42	22	11	2
IV { Patients in whom no definite evidence of Pulmonary Tuberculosis was found }		4				

In the above table A denotes Negative Sputum, B Positive.

The percentage of patients discharged with "Disease arrested" remains about the same, namely 55 per cent, as compared with 56 per cent last year.

Once again we note with gratification that the number of patients discharged with "Disease arrested" has increased on the last year. This can be ascribed to the continued increase in the amount of active treatment carried out on the cases admitted during the year.

As in the previous report, Group IV cases have been very few in number, as the long waiting list for admission has made it necessary for a diagnosis of tuberculosis to be made before the patient is accepted for treatment.

GROUPS

As in previous Annual Reports, the Turban-Gerhardt classification has been used to indicate the clinical condition of patients on admission. This classification, based on physical signs, is as follows :—

Group I.—Disease of slight severity, limited to small areas of one lobe on either side, which, in the case of affection of both apices, does not extend beyond the spine of the scapula or the clavicle, or, in the case of affection of the apex of one lung, does not extend below the second rib in front.

Group II.—Disease of slight severity, more extensive than Group I, but affecting at most the whole of one lobe; or severe disease extending at most to the half of one lobe.

Group III.—All cases of greater severity than Group II, and all those with considerable cavities.

By "disease of slight severity" is to be understood: disseminated foci characterised by slight dullness, indefinite rough or weak vesicular or broncho-vesicular breathing, and fine medium crepitations.

By "severe disease" is meant massive infiltration, recognised by dullness, broncho-vesicular or bronchial breathing, with or without crepitations.

Cases with signs of considerable excavation, giving rise to tympanitic percussion with amphoric or cavernous breathing and numerous coarse consonating râles come under Group III.

Pleuritic dullness, if only of slight extent, is to be left out of account ; if it is considerable, pleuritis should be specially mentioned under tuberculous complications.

The following terms are used to describe the condition of patients on discharge from the Sanatorium :—

“ *Disease Arrested.*”—General health completely restored in every respect, without any sign of disease of the lungs except such as is compatible with a completely healed lesion ; sputum, if still present, free from tubercle bacilli.

“ *Improved.*”—General health improved, but not restored ; physical signs of disease in the lungs still present, though less marked than on admission.

“ *Stationary.*”—No appreciable improvement in the condition of the lungs or in the general health.

“ *Worse.*”—General or local condition worse.

TABLE VIIIA—DEMONSTRATION OF T.B. IN SPUTUM

<i>On Admission</i>				<i>On Discharge</i>			
Positive	...	...	88	Positive	...	...	44
Negative	...	...	52	Negative	...	...	81
No Sputum	...	...	29	No Sputum	...	...	45
Not tested	...	...	1	Group IV	...	...	4
Group IV	...	...	4				
			174				174

In 35 cases, sputum which was T.B. positive on admission was negative on discharge ; in 14 such cases, sputum cleared up completely. In 5 cases, sputum which was T.B. negative on admission cleared up completely. Thus, sputum condition improved in 54 cases.

On looking through the above table, it may seem that a great number of patients are discharged with positive sputum. This is due to the fact that a large number of these patients went to live in the vicinity of the sanatorium and continued as out-patients, in order to make room for urgent admissions. Another reason is that we do not consider a sputum negative until it is negative on culture, as quite often ordinary negative sputum becomes positive on culture.

All positive cases are followed up and are not allowed to return to their work until negative. For those who go back to their own homes with a trace of sputum which is positive, instructions in the way to prevent spread of the disease are given in minute detail.

A number of those discharged with positive sputum are on our list of those to be readmitted for further treatment at a later date.

TABLE VIII B—ANALYSIS ACCORDING TO TREATMENT, OF SUCCESSFUL SPUTUM RESULTS, 1938-39.

Treatment	T.B. Positive to Negative	T.B. Positive to Nil	T.B. Negative to Nil	Total
Artificial Pneumothorax ...	16	6	3	25
Sanocrysin	7	3	1	11
Routine	6	3	1	10
Extra-Intrapleural Pneumo- thorax	3	—	—	3
Extrapleural Pneumothorax ...	1	1	—	2
Artificial Pneumothorax and Phrenic Evulsion	1	—	—	1
Upper Thoracoplasty	1	—	—	1
Artificial Pneumothorax and Sanocrysin	—	1	—	1
	<u>35</u>	<u>14</u>	<u>5</u>	<u>54</u>

TABLE IX—WEIGHT

Weight	Group I	Group II	Group III	Group IV	Total
Gained	27	86	9	4	126
Lost	9	22	7	—	38
No change	1	4	1	—	6
Not weighed	—	2	2	—	4
	<u>37</u>	<u>114</u>	<u>19</u>	<u>4</u>	<u>174</u>

RE-ADMISSION CASES

Of the 233 patients discharged, 51 were readmission cases, as compared with 56 last year and 36 the year before. The following table compares the clinical condition of these cases on their previous discharge with that on their readmission.

TABLE I

Group	Number of Cases	
	On previous discharge	On Readmission
I	5	2
II	28	28
III	12	15
IV	1	1
	<u>46</u>	<u>46</u>
Not Classified	5	5
	<u>51</u>	<u>51</u>

As in previous years, many of them returned for further treatment of an active kind, as specified below :—

Artificial Pneumothorax—

Continued from previous treatment	9
Induced before readmission	1
Induced in the Sanatorium after readmission...	5

Extrapleural Pneumothorax—

Induced before admission	1
Induced in the Sanatorium after readmission...	6
Extra-intrapleural Pneumothorax	4
Extrapleural Pneumothorax and Sanocrysin ...	1
Extrapleural Pneumothorax and Phrenic Crush ...	1
Thoracoplasty and Sanocrysin	1
Lower Thoracoplasty and Phrenic Evulsion ...	1
Phrenic Evulsion	2
Skin graft	1

33

The remaining 18 returned for further routine treatment.

TABLE II—GENERAL RESULTS OF TREATMENT OF READMISSION CASES

Group	Arrested	Much Improved	Improved	Stationary or Worse	Died in the Sanatorium	Total
I	1	1	—	—	—	2
II	17	5	5	1	—	28
III... ..	1	3	11	—	3	18
IV... ..	—	—	—	1	—	1
	<hr/> 19	<hr/> 9	<hr/> 16	<hr/> 2	<hr/> 3	<hr/> 49
Not Classified	...	...	...	...	...	5
						<hr/> 54

REPORT OF THE THROAT DEPARTMENT

Of the 233 patients discharged during the year, the larynx of 230 was examined by Sir St Clair Thomson. Definite tuberculous disease was present in 16 cases, as compared with 14 last year, while the larynx in the remaining 214 cases was found to be normal.

One case was treated with galvanocautery and was discharged with disease arrested. Three cases were put on silence and 5 on whispers.

Of the 16 patients suffering from disease of the larynx, 2 were thoracoplasty cases, 7 artificial pneumothorax and 2 were receiving Sanocrysin treatment.

TABLE I—SHOWING THE RESULT ON DISCHARGE OF TREATMENT IN PATIENTS SUFFERING FROM TUBERCULOSIS OF THE LARYNX IN WHOSE SPUTUM TUBERCLE BACILLI WERE DEMONSTRATED IN THE SANATORIUM.

Classification	Number of Cases	Arrested	Much Improved	Improved	Stationary or Worse	Remarks
Group I	1	—	—	—	1	—
Group II	2	2	—	—	—	—
Group III	5	3	—	1	1	And 1 patient who died in the Sanatorium.
Total ...	8	5	—	1	2	

TABLE II—SHOWING THE RESULT ON DISCHARGE OF TREATMENT IN PATIENTS SUFFERING FROM TUBERCULOSIS OF THE LARYNX IN WHOSE SPUTUM TUBERCLE BACILLI WERE NOT DEMONSTRATED IN THE SANATORIUM.

Classification	Number of Cases	Arrested	Much Improved	Improved	Stationary or Worse	Remarks
Group I	—	—	—	—	—	—
Group II	3	3	—	—	—	—
Group III	3	1	—	1	1	And 1 patient who died in the Sanatorium.
Total ...	6	4	—	1	1	

ARTIFICIAL PNEUMOTHORAX

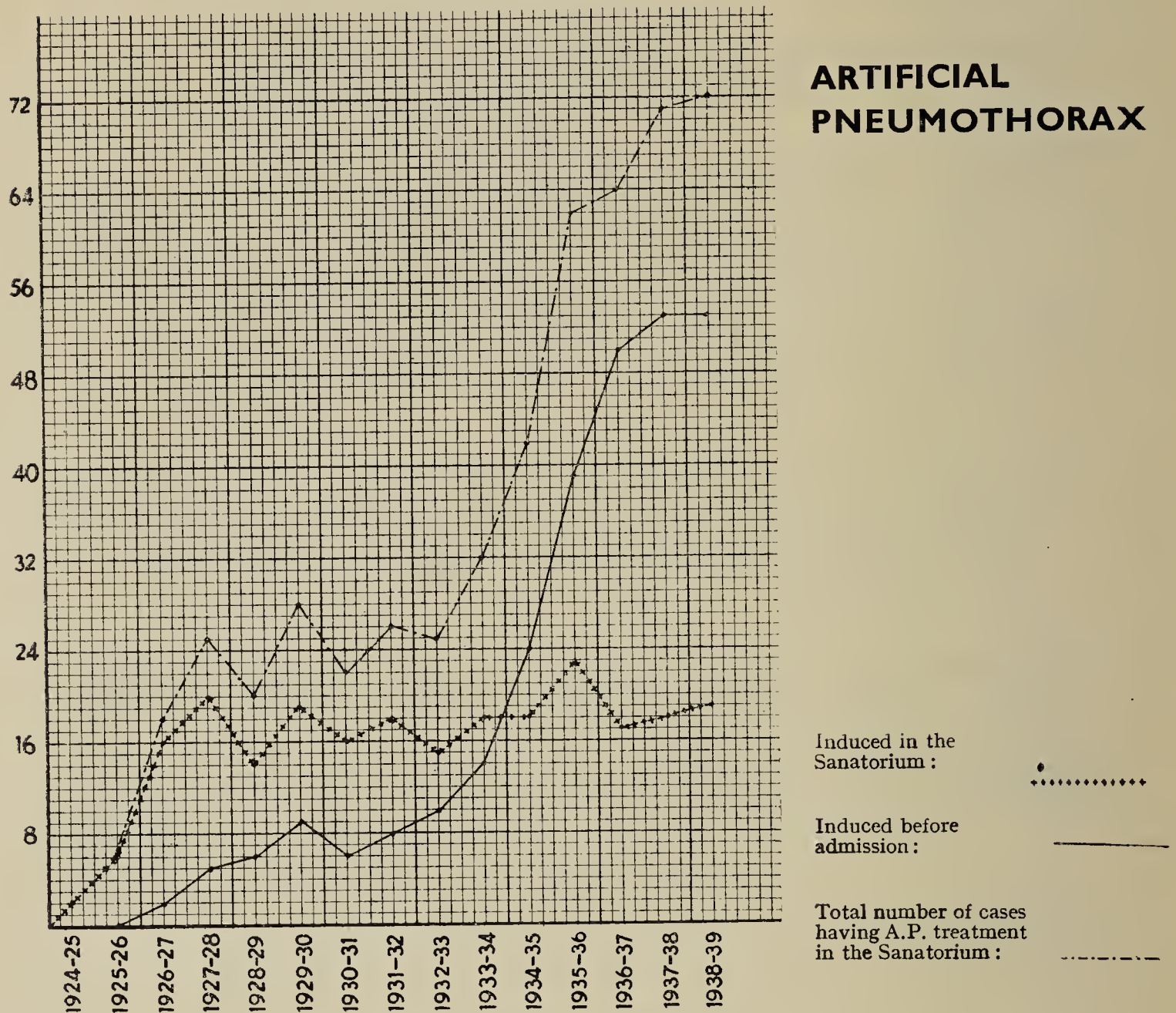
During the period 1925–1938, Artificial Pneumothorax was attempted in 280 cases, of which 220 were successful.

Of these 220 patients, 165 (75 per cent) are known to be alive. Particulars of sputum are known in 121 cases and are analysed as follows :—

TABLE I

	No Sputum	T.B. Negative	T.B. Positive	Sputum Not Tested	Total
Ceased Refills ...	55	3	5	18	81
Continuing Refills ...	21	8	5	6	40
	76	11	10	24	121

The total number of patients receiving artificial pneumothorax treatment during the year under review was 72. We again show the annual figures graphically.



Once again we would like to draw attention to the apparently small number of artificial pneumothoraces induced in the sanatorium (19), but this is entirely due to the fact that, owing to our long waiting list, many cases have their treatment commenced before admission. The actual number of patients receiving artificial pneumothorax treatment at any one time is extremely high, as can be seen by the graph.

All cases have been grouped as follows :—

Choice I.—Cases with involvement of not more than half of one lung, with signs of activity.

Choice II.—Cases in which the whole of one lung is affected, or the upper half of one, with slight infiltration in the other.

Choice III.—Cases with bilateral disease, but with a possibility of benefit by a limited pneumothorax on the more active side. Cases in extremis, e.g., with hæmoptysis.

TABLE II—AN ANALYSIS OF CASES IN WHICH ARTIFICIAL PNEUMOTHORAX WAS SUCCESSFULLY INDUCED IN THE SANATORIUM.

Classification	Larynx Normal	Sputum on Admission		Sputum on Discharge	
		No Sputum or T.B. Negative	T.B. Positive	No Sputum or T.B. Negative	T.B. Positive
Choice I	1	2	7	8	1
Choice II	1	1	9	8	2
Choice III	—	—	—	—	—
All Cases	2	3	16	16	3

TABLE III—ANALYSIS OF CASES IN WHICH ARTIFICIAL PNEUMOTHORAX WAS SUCCESSFULLY INDUCED BEFORE ADMISSION.

Sputum before induction of Artificial Pneumothorax		Sputum on Discharge	
No Sputum or T.B. Negative	T.B. Positive	No Sputum or T.B. Negative	T.B. Positive
6	45	41	10
Died in the Sanatorium		2	

SANOCRY SIN

The after-history of the 327 cases who had gold treatment in previous years shows that 80 are now dead, while of the remaining 247, 229 are known to be alive. Particulars of sputum are known in 182 cases, as follows :—

No Sputum	78
T.B. Negative	24
T.B. Positive	22
Sputum not tested	58
	<u>182</u>

Twenty-nine cases have been treated with Sanocrysin during the year under review, as compared with 28 last year. Of these, 14 ceased the treatment because of various complications. We include a table showing the amount each case received and the reason for it being discontinued. As it is impossible to give names, the cases are numbered.

It has been our practice again to start with .05 grame, then to increase after one dose, to .1 gm., and after three doses to .2 gm. We never exceed this amount. The urine is tested the day before and the day after, and two ounces of 50% glucose are given by mouth on the day of the injection.

We consider the drug dangerous enough to cease its administration on the first appearance of complications due to it. We have so often seen patients admitted to this sanatorium who have had a few extra doses given after the appearance of a rash or albumen in the urine, and who have consequently had a stormy time before the effects of the drug wore off.

Having had to stop the treatment for any reason, we never administer it again to the same patient.

SANOCRYSIN

Case Number	Amount Given	Reason for discontinuing treatment
1	.1	T.B. Bacilluria
2	.2	Diarrhoea
3	.3	Left the Sanatorium
4	.55	Left the Sanatorium
5	.8	Artificial Pneumothorax induced
6	.85	Died
7	.85	Sore tongue
8	.9	Vesicular eruption on lips
9	.95	Ulceration of mouth
10	1 grm.	Ulceration of mouth
11	1.05	Generalised itching
12	1.05	Generalised itching
13	1.2	Ulceration of mouth
14	1.2	Left the Sanatorium
15	1.40	Sore throat
16	1.4	Left the Sanatorium
17	2 grms.	Rash
18	2.15	Rash
19	2.3	Left the Sanatorium
20	2.6	Left the Sanatorium
21	2.65	Rash

Eight patients completed a course of this treatment, and the following table compares the results of sputum examination on admission and discharge.

Group	On Admission			On Discharge		
	No Sputum	T.B. Negative	T.B. Positive	No Sputum	T.B. Negative	T.B. Positive
I ...			1			1
II ...		1			1	
II ...			1		1	
II ...			1		1	
II ...			1			1
II ...		1			1	
II ...			1	1		
II ...			1	1		
Totals ...	—	2	6	2	4	2

SURGICAL DEPARTMENT

The following table shows the nature of the 120 major operations —

Thoracoplasty (on 16 cases)	...	...	35
Extrapleural Pneumothorax	...	...	11
Extra-Intrapleural Pneumothorax	...		7
Phrenic Evulsion	...	...	9
Phrenic Crush	...	...	1
Thoracoscopy and Division of Adhesions	...		44
Thoracoscopy	...	...	4
Thoracotomy and Division of Adhesions	...		1
Other Operations	...	...	8
			120

The theatre continues to do valuable work, and all kinds of thoracic operations are carried out as required. From the table showing the types of operations done, one sees that it is much the same as last year.

We have continued to get good results from thoracoplasty operations, extrapleural pneumothoraces and extra-intrapleural pneumothoraces. Our methods of carrying out these operations and their after-care were explained in detail in the last report.

The whole number of surgical cases treated since the opening of the theatre are being tabulated, and it is hoped to publish a full report on the condition of patients who have had these operations, before the actual operation, during treatment at the sanatorium and their present condition as regards sputum, health and capacity for work. Owing to the war, publication of these statistics has of necessity been delayed, but we hope to publish them as soon as circumstances permit. It is not possible to go further into this subject here, as it would take up too much space in a report of this kind.

A further number of modern instruments and equipment have been added to the theatre, as it is our practice to keep it fully up to date to deal with any emergency which may arise in the course of treatment of a chest case.

We do not propose in this report to discuss any special cases, as has been our practice in previous years, as it is imperative at this time to make it as concise as possible.

THORACOPLASTY

Of the 27 Group II cases who have undergone this treatment since its commencement here, 13 are known to be working or fit for work, 11 are well though not working, 1 has since died, and of the remaining 2, 1 has received further sanatorium treatment and 1 is on the waiting list for readmission.

Of the 18 Group III cases who have had the operation, 6 are known to be working or fit for work, 5 are well though not working, 5 have died and 2 are keeping in fair health.

EXTRA AND EXTRA-INTRAPLEURAL PNEUMOTHORACES

Of the 17 Group II cases who have had Extrapleural treatment since its commencement here, 4 are well and working or fit to work, 9 are well but not working, 1 is in fair health, 2 are still receiving sanatorium treatment, and 1 has died.

Of the 14 Group II cases who have received combined Extra-intrapleural treatment, 1 is working, 9 are well but not at work, 2 are in fair health, and 2 are still receiving sanatorium treatment.

Of the 3 Group III cases having Extrapleural treatment, 2 are keeping well and 1 has died. Two cases in this Group received Extra-intrapleural treatment; 1 is keeping well and 1 has been readmitted to the Sanatorium.

OPERATION RESULTS.—CASES DISCHARGED DURING THE YEAR.

PHRENIC OPERATIONS

Group	Blood Sedimentation Rate		Sputum	
	Before Operation	After Operation	Before Operation	After Operation
I	23	2	Negative	Nil
II	10	2	Positive	Negative
II	30	12	Positive	Negative
II	6	4	Positive	Negative
II	4	2	Positive	Negative
III	18	30	Positive	Negative
III	36	45	Negative	Positive

2 cases were in the Sanatorium for 1 week only.

THORACOPLASTY OPERATIONS

Gr'p	Blood Sedimentation Rate		Sputum		Working Capacity	
	Before Operation	After Operation	Before Operation	After Operation	Before Operation	After Operation
II	10	2	Positive	Negative	In bed	Full work
II	12	9	Positive	Negative	In bed	Normal life
II	9	2	Negative	Negative	Up all day	Full work
II	18	9	Positive	Positive	Up all day	Normal quiet life
III	5	2	Positive	Positive	In bed	Part-time work
III	27	8	Positive	Positive	In bed	Full work

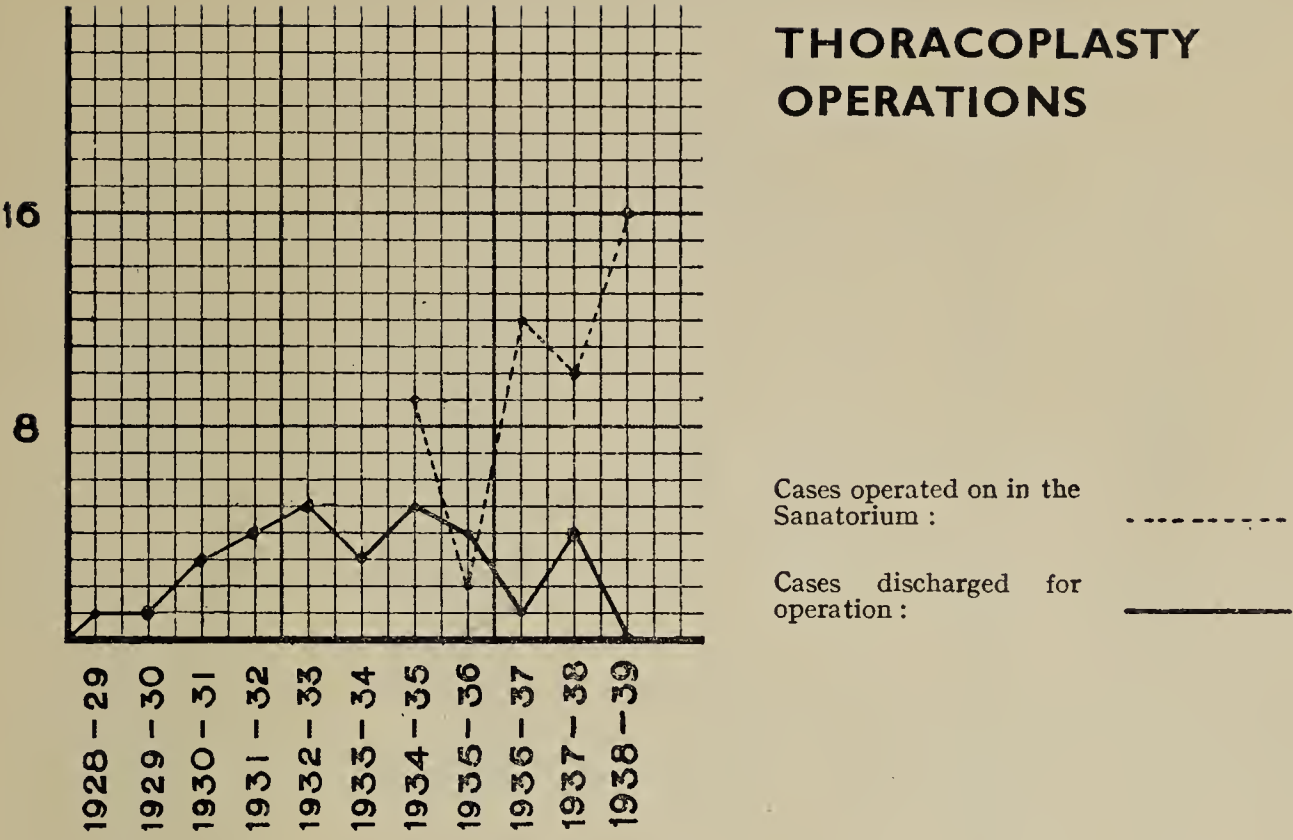
2 patients died in the Sanatorium.

ANALYSIS OF CASES IN WHICH EXTRAPLEURAL PNEUMOTHORAX WAS INDUCED BEFORE ADMISSION

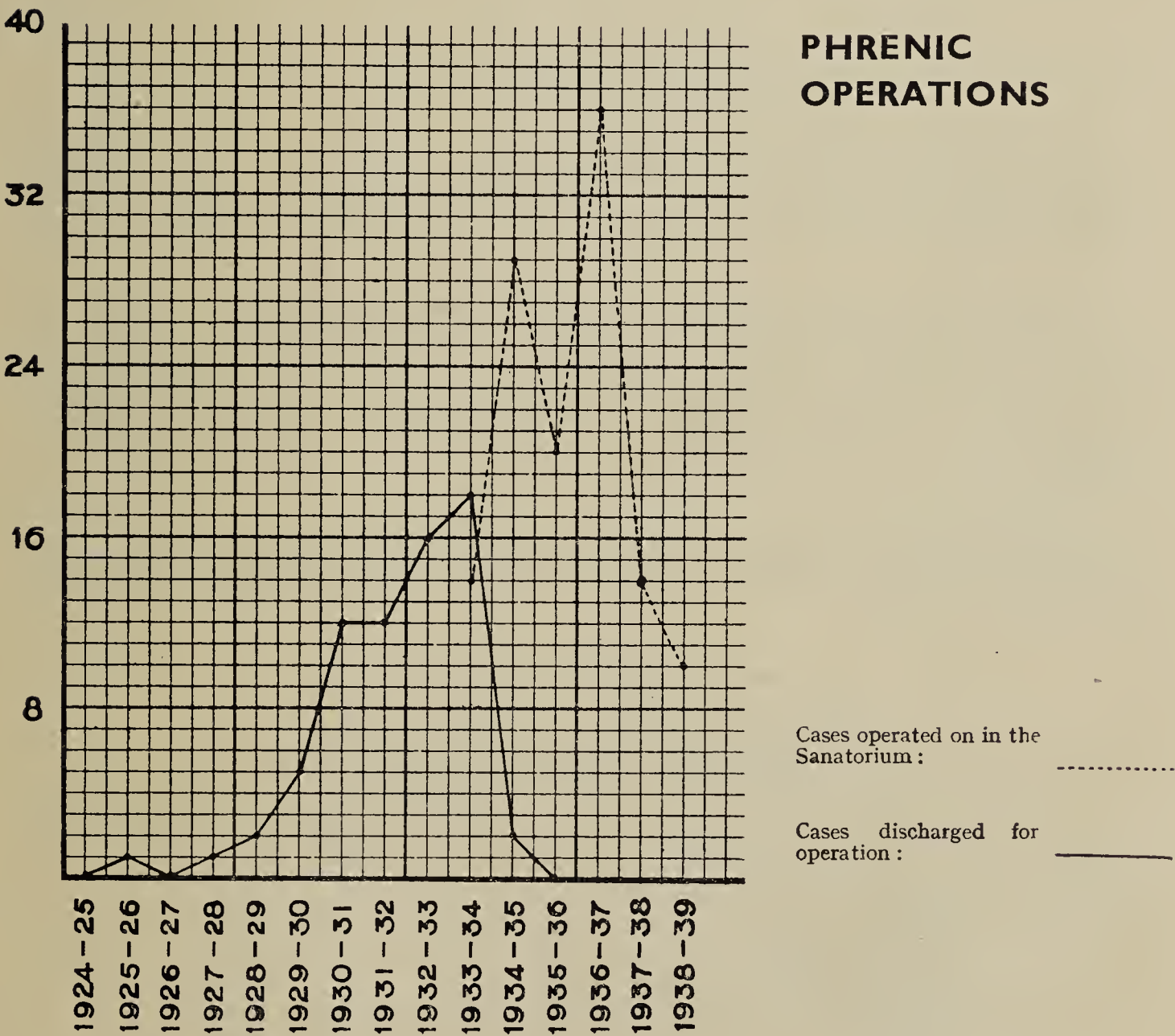
Sputum before Extrapleural Operation		Sputum on Discharge	
No Sputum or T.B. Negative	T.B. Positive	No Sputum or T.B. Negative	T.B. Positive
3	4	6	1

1 patient died in the Sanatorium.

THORACOPLASTY OPERATIONS



PHRENIC OPERATIONS



EXTRAPLEURAL AND EXTRA-INTRAPLEURAL PNEUMOTHORAX OPERATIONS

Group			Blood Sedimentation Rate		Sputum	
			Before Operation	After Operation	Before Operation	After Operation
II	...	...	30	16	Positive	Positive
II	...	...	11	7	Nil	Nil
II	...	...	14	1	Positive	Negative
II	...	...	29	11	Positive	Negative
II	...	...	17	11	Positive	Negative
II	...	...	4	2	Positive	Negative
II	...	...	6	3	Positive	Positive
II	...	...	55	30	Positive	Nil
II	...	...	6	4	Negative	Nil
II	...	...	10	8	Negative	Nil
II	...	...	13	4	Positive	Nil
II	...	...	39	20	Positive	Positive
II	...	...	27	4	Positive	Negative
II	...	...	8	17	Nil	Positive
II	...	...	21	12	Positive	Nil
II	...	...	30	35	Positive	Positive
II	...	...	29	16	Positive	Negative
III	...	...	16	2	Positive	Negative
III	...	...	38	15	Positive	Nil

X-RAY DEPARTMENT

The average number of routine pictures taken weekly remains about the same as in previous years. The tomograph has been used on many occasions and has helped considerably in the diagnosis of possible lesions in some cases.

Once again the screening of artificial pneumothorax cases has been carried out weekly, as we consider this to be of the utmost importance. It is our practice to refill the patient on their screen appearance and not according to pressures or times. Some cases whose degree of collapse appears to vary considerably are screened more than once a week if necessary.

We would like to thank our Consulting Radiologist, Doctor J. V. Sparks for his many helpful suggestions during his frequent visits in the year under review.

DENTAL DEPARTMENT

The following dental treatment has been carried out during the year :—

Fillings	...	...	...	...	...	163
Extractions	...	...	...	...	...	84
Scaling and Gum Treatment	...	...	...	...	...	23
Dentures	...	...	...	...	...	7
Repairs	...	...	...	...	...	7

PATHOLOGICAL DEPARTMENT

The following routine examinations were carried out during the year :—

Sedimentation Rates	...	...	...	2,276
Sputum Examinations	...	...	...	1,786
Urine Examinations	...	...	...	1,452
Pleural Effusions	...	...	...	303
Throat Swabs	...	...	...	34
Milk Examinations	...	...	...	14
Water Examinations	...	...	...	14
Blood Counts	...	...	...	179
Miscellaneous	...	...	...	30
Cultures for Tubercle Bacillus	...	...	...	469
				6,557

During the latter half of the year it has been possible to attempt to define more fully the optimum conditions for the culture of the tubercle bacillus. This has been done using a simplification of the technique suggested by Novy and Soule (J. Infect. Dis. 36. 168). Pleural effusions which showed tubercle bacilli on microscopical examination were cultured in concentrations of 40%, 50%, 60%, 70% of oxygen. As controls, the effusions were cultured in the usual way, and also in the presence of a large volume of air in order to see whether it is the amount of available oxygen or the actual tension which influences the growth.

It would appear that the rate of growth is increased if the oxygen concentration is raised up to 50%. At concentrations of 70% the bacilli from some patients seem to have their growth inhibited. Further investigations are proceeding on this question, but the preliminary results have been so promising that every specimen which is cultured is also put up under a concentration of 50% oxygen, and in some cases obvious colonies are apparent some 3–4 days earlier.

At the same time we are making some cultures in atmospheres of 50% oxygen and various concentrations of carbon dioxide (up to 1%) to determine whether a raised proportion of this latter gas has an accelerating effect sufficient to justify its use in routine events.

Using a Hempel gas burette and pipettes, we have been doing analyses of samples of gas withdrawn from the pleural cavity in those cases with a pneumothorax. By this means it has been possible to demonstrate the presence of pleural fistulæ whose existence would not have been diagnosed otherwise.

STATISTICAL DEPARTMENT

The work of the Statistical Department has been carried out on the same lines as in previous years.

The number of patients discharged from the Sanatorium up to date is 7,154. This number does not include Group IV cases, readmissions or patients who were in residence too short a time to be included in the records. Those about whom no information could be obtained number 346, or 4.8 per cent.

The statistics of the ultimate results of the enquiry are shown in the following tables :—

TABLE A1.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were demonstrated in the Sanatorium
All cases considered together

Year of Dis-charge	Number Discharged	Number reported " Well " or " Alive " in each successive year after Discharge																				Number Dead in 1939	No. lost sight of in 1939							
		1908-13	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932			1933	1934	1935	1936	1937	1938	1939
1906/07	125	412	38	47	45	42	42	38	39	34	36	34	34	33	31	30	30	29	29	28	28	26	26	26	25	23	21	21	99	5
1907/08	206	555	72	70	70	75	72	63	59	58	54	54	55	52	50	46	44	44	42	41	41	40	40	40	40	39	39	36	164	6
1908/09	205	435	64	55	64	67	62	60	56	55	52	48	48	47	45	43	43	42	41	41	39	39	38	36	36	35	33	167	5	
1909/10	192	340	75	69	73	71	69	60	61	56	53	51	49	48	38	36	35	39	37	36	35	34	34	33	33	29	30	156	6	
1910/11	197	225	88	74	73	72	69	61	56	48	47	47	44	39	34	33	32	31	31	31	29	28	29	27	22	21	20	170	7	
1911/12	198	111	95	81	76	72	68	55	54	50	46	44	43	40	34	33	32	31	31	31	30	29	29	27	25	23	19	165	14	
1912/13	160	—	113	94	78	75	167	49	52	49	48	45	42	40	35	35	33	33	33	32	29	35	35	29	25	27	27	131	2	
1913/14	177	—	—	118	84	86	82	75	75	68	60	55	49	47	46	43	43	38	37	37	37	40	39	38	31	30	30	145	7	
1914/15	193	—	—	—	123	117	104	83	83	75	71	68	61	61	55	53	49	45	44	42	41	40	39	38	34	31	30	158	5	
1915/16	154	—	—	—	—	105	93	68	65	57	51	48	41	38	35	35	33	30	29	28	26	26	25	23	21	20	19	130	5	
1916/17	212	—	—	—	—	—	166	127	116	105	99	89	79	79	74	73	69	67	65	64	60	60	57	53	51	50	49	47	157	8
1917/18	184	—	—	—	—	—	—	118	115	95	82	80	69	70	62	64	62	58	54	52	51	50	48	47	47	46	42	42	132	10
1918/19	198	—	—	—	—	—	—	—	165	136	121	112	102	99	92	86	84	81	79	78	74	71	68	68	60	60	57	56	131	11
1919/20	196	—	—	—	—	—	—	—	—	165	140	126	110	100	91	85	81	74	72	70	69	62	61	64	62	59	54	50	139	7
1920/21	197	—	—	—	—	—	—	—	—	—	156	141	116	96	89	81	74	73	73	70	69	65	65	64	60	59	57	57	135	5
1921/22	176	—	—	—	—	—	—	—	—	—	—	150	127	111	92	76	69	62	53	51	51	49	47	45	42	39	36	34	138	4
1922/23	165	—	—	—	—	—	—	—	—	—	—	—	135	114	100	89	80	74	67	63	60	54	52	47	47	43	42	41	121	3
1923/24	166	—	—	—	—	—	—	—	—	—	—	—	—	124	112	99	91	81	73	65	59	49	46	42	42	40	39	123	4	
1924/25	128	—	—	—	—	—	—	—	—	—	—	—	—	—	106	90	79	72	66	60	52	49	46	44	42	41	38	86	3	
1925/26	114	—	—	—	—	—	—	—	—	—	—	—	—	—	—	97	89	80	73	67	62	61	53	48	46	44	41	70	3	
1926/27	127	—	—	—	—	—	—	—	—	—	—	—	—	—	—	115	115	109	101	96	89	84	76	75	74	70	63	65	56	6
1927/28	121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	103	94	84	79	74	68	62	59	56	50	52	63	6
1928/29	118	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	104	90	81	70	69	66	63	61	54	55	58	5
1929/30	155	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	136	124	112	103	94	88	83	76	73	73	6
1930/31	134	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	124	118	104	89	81	76	69	67	58	9
1931/32	125	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	116	97	86	81	78	64	65	56	4
1932/33	141	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	119	112	101	98	79	82	51	8
1933/34	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	76	76	68	55	40	40	5
1934/35	118	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	102	102	91	79	37	37	2
1935/36	115	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68	91	96	90	24	1
1936/37	103	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	102	102	93	15	15	—
1937/38	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	83	8	—

TABLE A3.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were demonstrated in the Sanatorium

Group II considered separately

Year of Discharge	Number Discharged	Number reported "Well" or "Alive" in each successive year after Discharge																										Number Dead in 1939	No. lost sight of in 1939		
		1908-13	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938			1939	
1906/07	57	225	18	23	18	19	18	17	17	17	17	17	16	15	15	15	14	14	14	13	12	12	12	12	12	12	11	10	44	2	
1907/08	85	255	32	33	35	32	28	24	25	24	24	24	23	22	19	18	18	18	17	16	15	15	15	15	15	15	15	15	69	3	
1908/09	94	223	37	38	40	36	34	34	33	31	31	24	31	28	25	26	25	25	24	24	22	23	22	22	22	22	22	22	70	4	
1909/10	99	172	38	36	33	32	28	26	26	26	24	25	24	23	16	21	22	21	21	20	19	19	19	19	19	19	17	17	80	2	
1910/11	100	111	49	37	37	35	29	28	23	22	22	21	19	18	16	16	16	16	15	14	13	13	16	12	12	12	11	11	84	5	
1911/12	110	65	59	43	41	38	34	33	32	29	29	28	25	22	21	21	25	20	20	20	17	22	22	22	22	22	20	14	88	8	
1912/13	101	—	77	53	51	45	33	38	35	35	35	29	28	25	25	29	25	25	24	24	23	23	19	19	17	17	20	20	80	1	
1913/14	95	—	—	54	55	54	51	50	47	42	40	34	32	31	28	33	30	26	24	24	27	23	26	25	21	14	13	77	5		
1914/15	99	—	—	74	74	69	57	57	51	46	43	38	39	36	36	33	30	26	29	28	27	27	26	25	21	19	19	78	2		
1915/16	71	—	—	—	—	49	35	33	28	24	22	17	14	12	12	12	10	10	10	10	9	8	8	8	8	7	8	62	1		
1916/17	99	—	—	—	—	89	72	65	62	56	50	44	46	43	43	42	40	39	39	39	37	34	32	32	31	28	27	67	5		
1917/18	86	—	—	—	—	—	63	65	54	50	48	40	41	36	38	38	36	34	34	34	32	42	42	41	38	36	28	52	6		
1918/19	98	—	—	—	—	—	—	86	72	69	64	60	59	56	55	53	50	48	48	47	45	44	42	41	38	36	35	57	6		
1919/20	69	—	—	—	—	—	—	—	63	55	48	46	43	42	39	35	31	24	30	30	29	26	26	26	26	25	22	45	2		
1920/21	62	—	—	—	—	—	—	—	—	56	47	38	31	28	26	24	24	24	24	24	23	21	21	20	19	18	18	42	2		
1921/22	48	—	—	—	—	—	—	—	—	—	43	35	31	27	23	23	19	17	17	15	15	15	15	15	15	14	11	35	2		
1922/23	28	—	—	—	—	—	—	—	—	—	—	27	24	23	21	21	18	17	17	17	16	15	14	12	12	11	10	16	2		
1923/24	29	—	—	—	—	—	—	—	—	—	—	—	26	25	22	21	17	15	15	14	14	14	13	11	11	10	10	18	1		
1924/25	59	—	—	—	—	—	—	—	—	52	—	—	—	—	50	43	39	35	35	33	28	27	25	25	24	23	22	36	1		
1925/26	46	—	—	—	—	—	—	—	—	—	—	—	—	—	42	40	38	61	60	59	31	31	28	26	25	23	23	23	3		
1926/27	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66	63	61	60	55	56	53	46	45	41	39	40	26	5		
1927/28	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61	79	71	65	57	58	44	45	38	34	30	4		
1928/29	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	90	84	73	68	62	53	49	42	40	51	3	
1929/30	103	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	93	91	80	71	65	60	52	40	40	3	
1930/31	99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81	73	65	62	54	47	32	32	7	
1931/32	82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	86	81	71	60	52	40	40	3	
1932/33	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65	61	46	47	32	32	6	
1933/34	45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81	71	60	61	25	25	1	
1934/35	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39	36	30	30	14	14	2	
1935/36	73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	49	41	16	16	10	—
1936/37	71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	66	63	3	3	—	—
1937/38	62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70	68	2	2	—	—

TABLE A4.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were demonstrated in the Sanatorium

Group III considered separately

[illegible]

TABLE A6.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were not demonstrated in the Sanatorium

Group I considered separately

Year of Discharge	Number Discharged	Number reported "Well" or "Alive" in each successive year after Discharge																										Number Dead in 1939	No. lost sight of in 1939		
		1908-13	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938			1939	
1906/07	16	81	10	11	13	13	15	15	14	13	13	14	14	13	14	14	14	12	11	12	13	13	12	12	10	9	9	8	9	5	2
1907/08	31	137	23	22	24	26	25	24	24	22	23	23	23	23	23	23	23	22	22	21	21	19	18	18	18	18	14	14	12	12	5
1908/09	39	110	31	25	23	25	28	27	28	29	27	28	28	28	26	25	26	27	26	26	25	23	23	21	21	20	19	20	19	14	5
1909/10	42	107	36	30	34	35	35	32	33	32	26	32	31	31	24	30	29	28	28	24	27	26	24	22	22	22	22	21	21	11	5
1910/11	37	58	30	29	31	29	29	27	27	18	20	18	18	18	18	18	19	19	19	19	19	19	19	22	22	22	21	21	21	12	10
1911/12	26	22	22	23	20	21	21	20	20	14	15	15	15	15	14	14	14	13	13	13	13	12	12	12	12	12	11	11	9	7	4
1912/13	19	—	18	16	18	18	17	17	15	27	25	24	25	25	26	24	24	24	25	25	23	23	22	22	21	21	19	19	9	7	—
1913/14	28	—	—	26	21	28	27	25	26	25	25	24	25	26	26	24	24	24	12	12	9	9	10	10	9	9	8	8	7	3	6
1914/15	17	—	—	—	13	15	14	9	13	11	11	12	12	11	11	12	12	12	26	26	26	26	25	24	24	23	23	20	20	5	4
1915/16	32	—	—	—	—	31	32	29	29	27	28	27	27	29	28	29	29	28	26	26	26	29	29	23	23	23	20	24	24	7	5
1916/17	34	—	—	—	—	—	33	31	33	28	31	29	31	32	30	32	32	29	30	30	30	41	41	41	41	41	41	41	41	24	2
1917/18	51	—	—	—	—	—	—	47	48	46	42	44	45	46	45	46	45	44	44	44	41	41	41	41	41	41	41	41	41	28	5
1918/19	35	—	—	—	—	—	—	—	34	34	33	33	32	34	34	33	33	32	30	31	31	31	31	31	31	31	31	31	31	34	4
1919/20	50	—	—	—	—	—	—	—	—	47	48	47	45	43	43	42	41	41	41	41	41	47	47	43	43	43	42	40	39	10	6
1920/21	48	—	—	—	—	—	—	—	—	—	—	48	47	46	46	44	43	45	45	47	47	47	47	47	43	39	39	39	39	4	4
1921/22	51	—	—	—	—	—	—	—	—	—	—	50	49	47	47	46	46	46	45	45	44	42	41	41	39	38	38	38	39	8	8
1922/23	35	—	—	—	—	—	—	—	—	—	—	—	33	32	32	31	29	28	27	26	26	26	25	25	25	24	24	24	23	2	2
1923/24	43	—	—	—	—	—	—	—	—	—	—	—	—	42	42	40	39	39	39	38	38	37	37	35	35	33	33	31	32	3	6
1924/25	49	—	—	—	—	—	—	—	—	—	—	—	—	48	48	46	45	42	42	40	40	40	41	40	40	40	40	39	38	6	6
1925/26	44	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43	43	43	43	42	42	41	40	40	39	39	38	35	36	2	2
1926/27	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	24	24	24	24	23	23	23	23	23	21	17	19	5	1
1927/28	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35	35	32	32	31	30	28	28	27	27	27	23	22	10	3
1928/29	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	32	32	31	30	29	29	27	26	25	21	26	3	3
1929/30	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	20	20	19	19	19	19	19	18	19	1	—
1930/31	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20	20	19	19	19	19	19	16	17	1	2
1931/32	35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	35	35	34	34	33	33	31	32	3	3
1932/33	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	27	26	26	26	23	24	1	—
1933/34	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25	25	25	24	24	21	2	—
1934/35	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	22	22	21	20	20	1	—
1935/36	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28	28	28	—	—
1936/37	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	27	27	27	—	—
1937/38	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

TABLE A7.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were not demonstrated in the Sanatorium
 Group II considered separately

Year of Dis-charge	Number Discharged	Number reported " Well " or " Alive " in each successive year after Discharge																										Number Dead in 1939	No. lost sight of in 1939		
		1908-13	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938			1939	
1906/07	7	31	4	5	5	6	6	6	5	5	5	4	4	3	4	4	4	4	3	3	3	3	3	2	2	2	1	1	4	2	
1907/08	18	70	11	12	13	13	13	13	12	12	12	10	10	10	10	9	9	9	8	8	7	7	6	6	6	6	5	5	12	1	
1908/09	25	63	15	14	14	15	15	15	14	14	14	14	14	12	12	11	12	12	12	12	12	12	12	11	11	11	11	11	13	1	
1909/10	15	34	10	11	12	12	12	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	7	7	7	6	6	7	13	1	
1910/11	10	16	8	8	9	9	7	7	7	7	7	7	7	7	7	7	6	6	6	6	5	5	4	4	4	3	2	2	6	2	
1911/12	20	14	9	12	13	14	14	8	10	9	8	8	8	8	8	8	8	8	8	8	6	6	5	5	5	5	4	4	11	5	
1912/13	9	—	9	9	7	8	8	7	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	5	2	5	
1913/14	11	—	—	9	9	8	8	7	8	8	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	4	4	4	3	
1914/15	14	—	—	—	13	13	13	10	15	10	9	9	9	9	9	9	9	8	8	8	8	8	8	8	8	8	8	8	5	1	
1915/16	23	—	—	—	—	19	16	13	16	15	15	14	14	14	12	12	11	11	10	10	9	9	9	7	7	12	11	7	14	3	
1916/17	24	—	—	—	—	—	23	22	22	22	20	18	18	18	18	17	17	18	17	17	15	15	15	15	15	15	13	13	13	4	
1917/18	59	—	—	—	—	—	—	55	51	50	48	47	47	47	45	45	43	41	41	41	40	39	39	37	39	36	31	31	21	7	
1918/19	71	—	—	—	—	—	—	—	68	67	68	66	64	64	62	61	61	63	62	61	57	57	52	50	49	48	44	47	16	8	
1919/20	20	—	—	—	—	—	—	—	—	20	20	20	20	18	19	19	19	18	18	17	17	17	16	16	15	14	13	14	5	1	
1920/21	14	—	—	—	—	—	—	—	—	—	14	13	13	13	13	13	13	12	12	12	11	10	9	8	8	8	9	9	2	3	
1921/22	28	—	—	—	—	—	—	—	—	—	—	26	27	27	26	25	25	22	21	21	20	19	19	18	18	16	15	15	5	5	
1922/23	9	—	—	—	—	—	—	—	—	—	—	8	7	7	7	6	6	6	5	5	5	5	5	5	5	5	4	5	4	—	—
1923/24	15	—	—	—	—	—	—	—	—	—	—	—	14	14	14	14	14	14	14	13	13	13	13	13	13	12	11	12	2	2	
1924/25	18	—	—	—	—	—	—	—	—	—	—	—	18	18	18	17	17	16	16	16	16	16	15	15	15	15	13	13	3	2	
1925/26	19	—	—	—	—	—	—	—	—	—	—	—	—	—	19	19	19	17	15	14	14	14	13	11	11	11	11	10	7	2	
1926/27	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	10	10	10	9	9	9	8	8	8	8	8	8	2	1	
1927/28	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	17	17	15	14	14	14	12	12	11	11	11	6	1	
1928/29	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	16	16	16	15	15	14	13	12	6	1	
1929/30	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	12	12	11	10	10	10	9	9	5	1	
1930/31	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	22	21	18	18	17	17	16	15	6	1	
1931/32	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	22	22	21	21	21	21	6	1	
1932/33	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	1	
1933/34	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	2	
1934/35	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	2	
1935/36	43	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	
1936/37	49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	
1937/38	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	

TABLE B1.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were demonstrated in the Sanatorium

Condition on Admission	Discharge	Discharged during the Year																								Condition in 1939			
		1906/13	1913/14	1914/15	1915/16	1916/17	1917/18	1918/19	1919/20	1920/21	1921/22	1922/23	1923/24	1924/25	1925/26	1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33	1933/34	1934/35	1935/36		1936/37	1937/38	
Group I	Disease Arrested	40 53 6	2 4 1	2 6 1	3 4 1	5 7 —	— 2 1	3 — —	9 1 1	18 3 3	8 5 —	8 9 —	7 3 1	6 2 2	6 2 1	7 3 —	9 1 —	7 2 —	22 4 3	10 2 2	6 1 —	9 — 1	6 1 —	2 — —	6 — —	3 — —	3 — —	1937/38	
	Much Improved	33 76 6	4 4 1	3 5 1	1 4 1	6 2 1	5 4 —	4 1 1	5 9 1	7 12 —	4 7 —	7 5 —	4 4 —	2 — —	— 1 —	6 1 —	1 1 —	1 — —	2 1 —	— — —	2 — —	3 — 1	6 — —	— — —	2 — —	4 — —	1 — —	1937/38	
	Improved	2 6 2	— 1 —	— 1 —	— — —	— 1 1	— 1 1	1 — —	1 2 —	— 1 —	— 1 —	— — —	— 1 1	— 1 —	1 1 —	1 — —	4 1 —	1 — —	1 1 —	1 1 —	— 1 —	— — —	— — 1	1 1 —	— — —	— — —	— — —	— — —	1937/38
	Stationary or Worse	2 13 —	1 1 —	1 — —	1 — 1	— 1 —	— 1 —	— — —	— — —	— — —	— 1 —	— — —	— — —	1 — —	— 1 —	— — —	— — —	1 1 —	— 1 —	— — —	1 1 —	— — —	— — —	— — —	— — —	— — —	— — —	— — —	1937/38
Group II	Disease Arrested	35 57 5	5 9 1	4 9 1	2 5 —	4 5 1	2 3 —	6 — 2	7 1 1	7 5 —	3 4 1	5 4 1	5 5 —	5 5 —	4 1 —	10 4 2	10 5 1	14 5 2	12 6 1	11 1 —	14 4 1	25 5 3	5 1 —	7 1 —	15 1 —	23 — —	32 — —	1937/38	
	Much Improved	59 223 12	5 41 4	14 40 —	5 31 —	21 41 3	19 32 4	26 36 3	12 35 1	11 30 2	7 23 2	4 12 1	5 12 1	13 13 1	9 4 —	13 5 1	11 9 2	11 6 1	18 8 —	17 8 3	14 9 1	15 6 1	21 3 1	23 8 1	33 4 —	24 — —	22 1 —	1937/38	

Group	Improved	9	3	—	—	13	1	6	2	3	—	—	1	—	3	16	9	14	9	15	14	15	15	11	17	3	9	12	19	4	Alive Dead Lost sight of
		118	9	—	—	1	—	9	14	1	7	—	—	—	—	1	—	—	—	—	—	—	2	10	1	—	6	4	1	—	
Group III	Stationary or Worse	5	—	2	1	1	—	—	1	—	—	—	—	—	—	1	1	3	4	2	3	8	8	4	1	1	2	3	1	2	Alive Dead Lost sight of
	115	18	20	13	11	9	2	7	—	2	—	—	—	—	—	2	9	3	8	13	15	16	9	7	1	3	1	1	1	—	
Group III	Disease Arrested	—	—	—	—	—	—	—	—	1	3	2	2	5	1	1	—	1	—	—	—	—	—	—	—	—	3	—	1	1	Alive Dead Lost sight of
	5	1	—	1	1	—	—	—	—	2	2	5	3	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
Group III	Much Improved	1	3	0	5	6	6	12	7	7	5	11	12	2	2	2	5	1	3	—	—	—	—	1	4	6	10	8	2	5	Alive Dead Lost sight of
	71	6	19	18	27	28	35	29	29	57	54	54	54	9	5	5	2	2	5	2	2	—	—	1	2	7	2	2	1	1	
Group III	Improved	3	—	2	1	—	—	1	1	5	3	4	1	—	3	5	4	6	3	2	1	2	2	7	3	4	11	6	8	9	Alive Dead Lost sight of
	118	10	17	13	26	21	20	32	32	22	31	25	31	27	28	13	1	10	10	6	5	—	8	4	1	7	12	5	6	4	
Group III	Stationary or Worse	1	2	3	—	3	1	—	—	—	—	—	2	—	—	2	11	—	—	2	1	1	3	2	19	6	4	5	3	4	Alive Dead Lost sight of
	193	41	32	78	25	24	18	19	8	9	—	9	10	10	14	1	10	2	14	6	10	9	12	19	1	11	7	7	4	1	
Group III	Summary	190	25	31	19	47	41	56	50	56	34	41	39	39	39	41	65	52	55	55	74	66	66	82	55	78	90	88	83	Alive Dead Lost sight of	
	1048	145	158	130	157	133	131	139	139	135	137	121	123	123	86	70	56	63	59	59	76	58	56	50	40	38	24	15	8		—
TOTAL		1283	177	193	154	212	184	198	196	197	176	165	166	128	114	127	121	118	155	134	125	141	100	118	115	103	91				

TABLE B2.—STATISTICS OF ULTIMATE RESULTS

Cases in the Sputum of which T.B. were not demonstrated in the Sanatorium

Condition on Admis- sion	Discharged during the Year																							Condition in 1939				
	1906/13	1913/14	1914/15	1915/16	1916/17	1917/18	1918/19	1919/20	1920/21	1921/22	1922/23	1923/24	1924/25	1925/26	1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33	1933/34	1934/35		1935/36	1936/37	1937/38	
Discharge	99 58 27	6 — —	5 1 1	19 7 4	15 4 1	32 5 4	21 2 3	28 7 4	36 5 4	37 8 2	19 7 1	25 8 3	31 3 4	29 2 4	18 4 1	19 6 2	19 3 2	18 — —	15 1 1	31 — 2	23 1 2	17 3 —	19 2 —	26 1 —	26 — —	22 — —	Alive Dead Lost sight of	
Disease Arrested		12 4 3	2 4 2	1 — 1	9 4 1	6 — 2	6 1 1	1 3 2	1 — —	— — 2	3 2 1	5 — —	6 2 2	4 — —	— — —	1 2 1	4 — 1	— 1 —	— — —	1 — 1	— — —	2 1 1	1 — —	2 — —	— — —			
Much Improved		6 8 1																										Alive Dead Lost sight of
Improved																												
Stationary or Worse																											Alive Dead Lost sight of	
Disease Arrested																											Alive Dead Lost sight of	
Much Improved																											Alive Dead Lost sight of	

Group	Improved	2	3	—	—	—	1	2	1	—	1	2	1	2	1	2	1	2	1	2	1	2	1	2	6	4	3	—	Alive Dead Lost sight of
		5	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Group III	Stationary or Worse	5	1	—	1	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	Alive Dead Lost sight of
	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Disease Arrested	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	Alive Dead Lost sight of
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Much Improved	1	1	—	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Alive Dead Lost sight of
	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Improved	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Alive Dead Lost sight of
	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Stationary or Worse	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Alive Dead Lost sight of
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Summary	149	24	16	27	37	75	79	51	52	59	31	46	54	50	29	35	39	28	33	53	46	64	70	71	74	65	Alive Dead Lost sight of	
	133	10	13	24	15	30	27	20	7	7	24	18	18	10	11	9	16	10	8	8	7	22	11	2	2	4	1		
	TOTAL	327	41	35	59	58	117	119	78	66	93	51	68	72	70	41	55	53	35	44	64	56	89	83	75	78	66		

